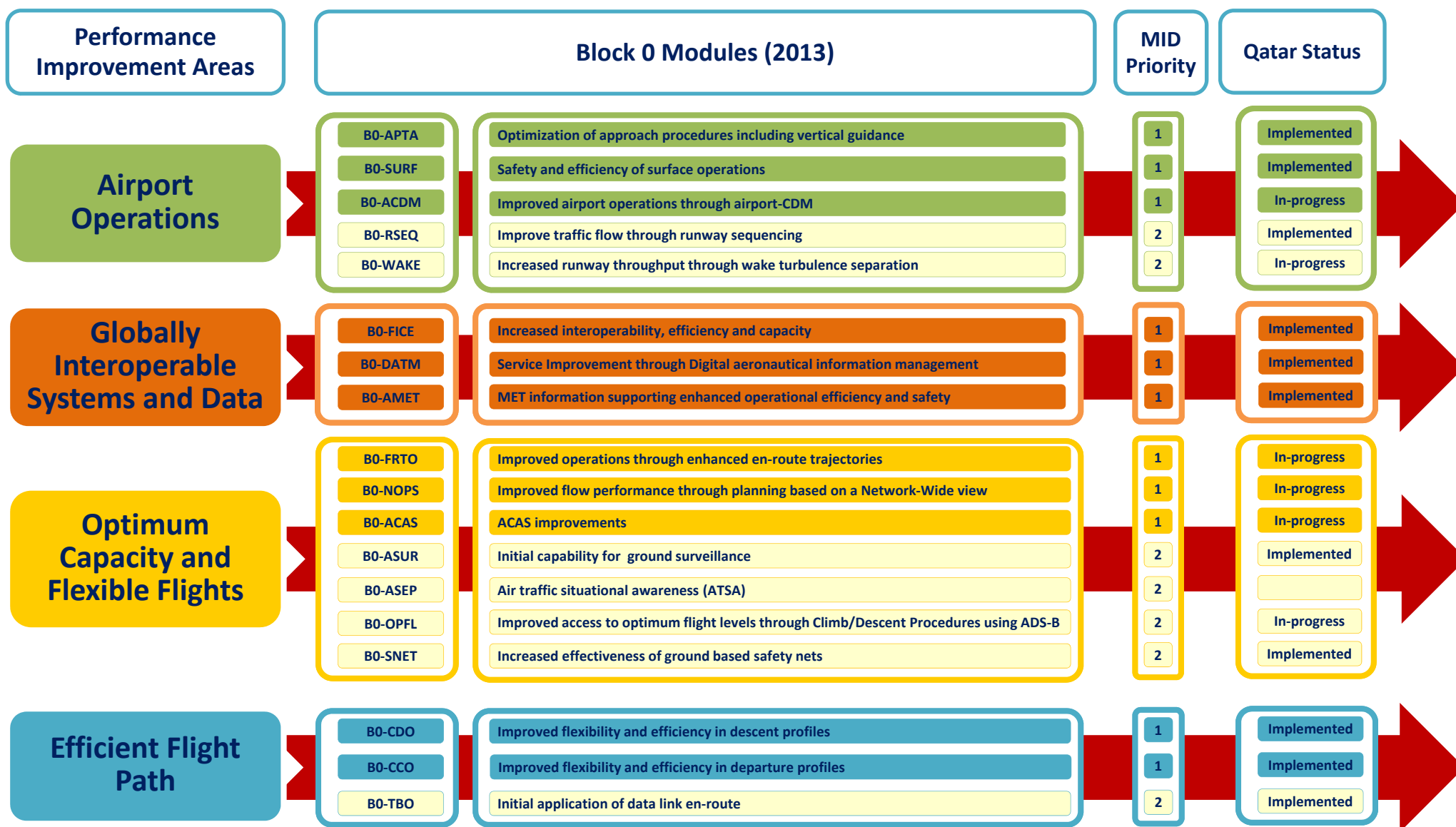


Aviation System Block Upgrade (ASBU)

Qatar - Block 0 Implementation

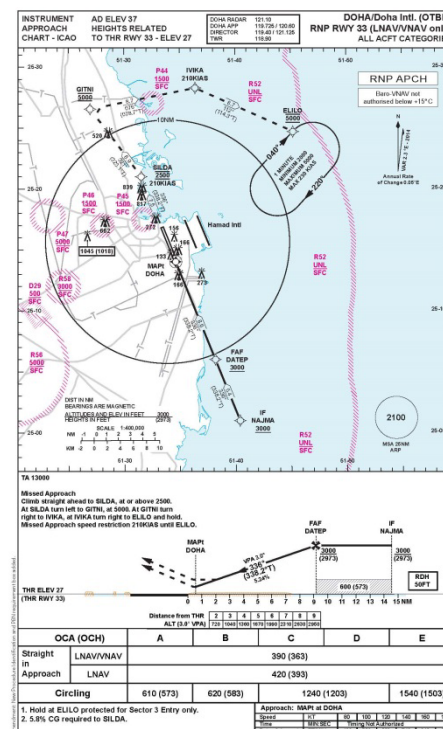
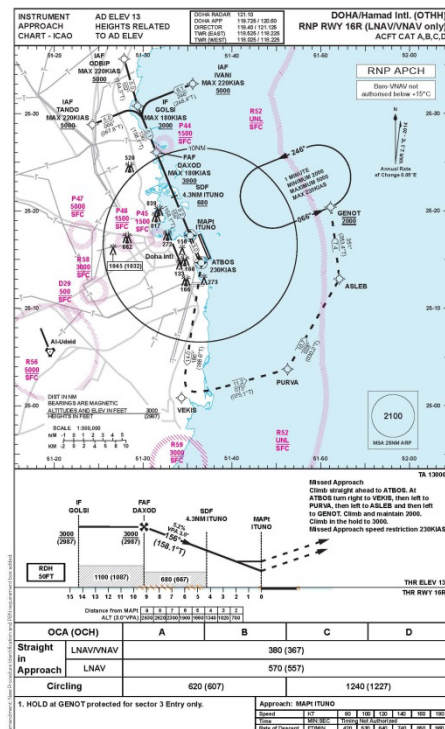
ASBU Block 0 Modules



Performance Improvement Area 1: Airport Operations

- (B0-APTA) Optimization of approach procedures including vertical guidance

Aerodrome Location Indicator /Name	RWY	Precision		VOR or NDB	LNAV	LNAV / VNAV
		ILS	CAT			
OTHH/Hamad Intl. Airport	16L	ILS	I/II/III	VORDME	Implemented	Implemented
	16R	ILS	I/II/III	VORDME	Implemented	Implemented
	34L	ILS	I/II/III	VORDME	Implemented	Implemented
	34R	ILS	I/II/III	VORDME	Implemented	Implemented
OTBD/Doha Intl. Airport	15	ILS	I	VORDME	Implemented	Not applicable
	33	ILS	I/II/III	VORDME, NDB	Implemented	Implemented

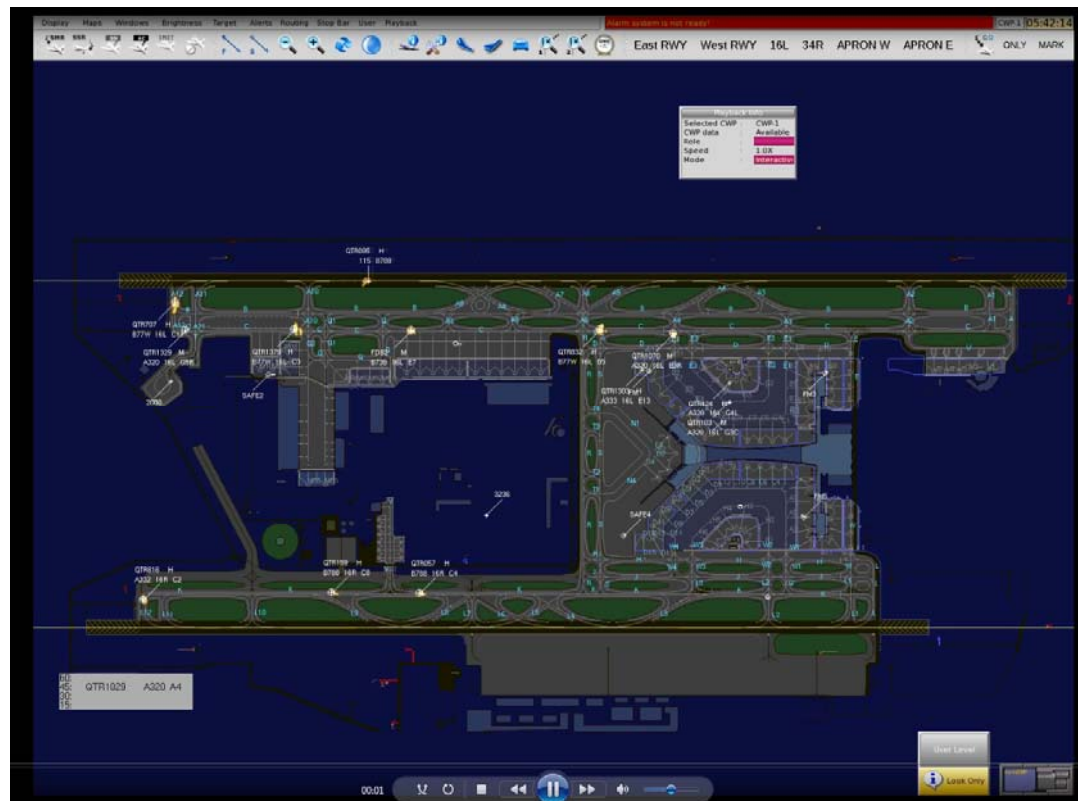


Performance Improvement Area 1:

Airport Operations

- (B0-SURF) Safety and efficiency of surface operations

Aerodrome Location Indicator /Name	A-SMGCS (Level 1)	A-SMGCS (Level 2)
OTHH/Hamad Intl. Airport	Implemented	Implemented
OTBD/Doha Intl. Airport	Implemented	Implemented

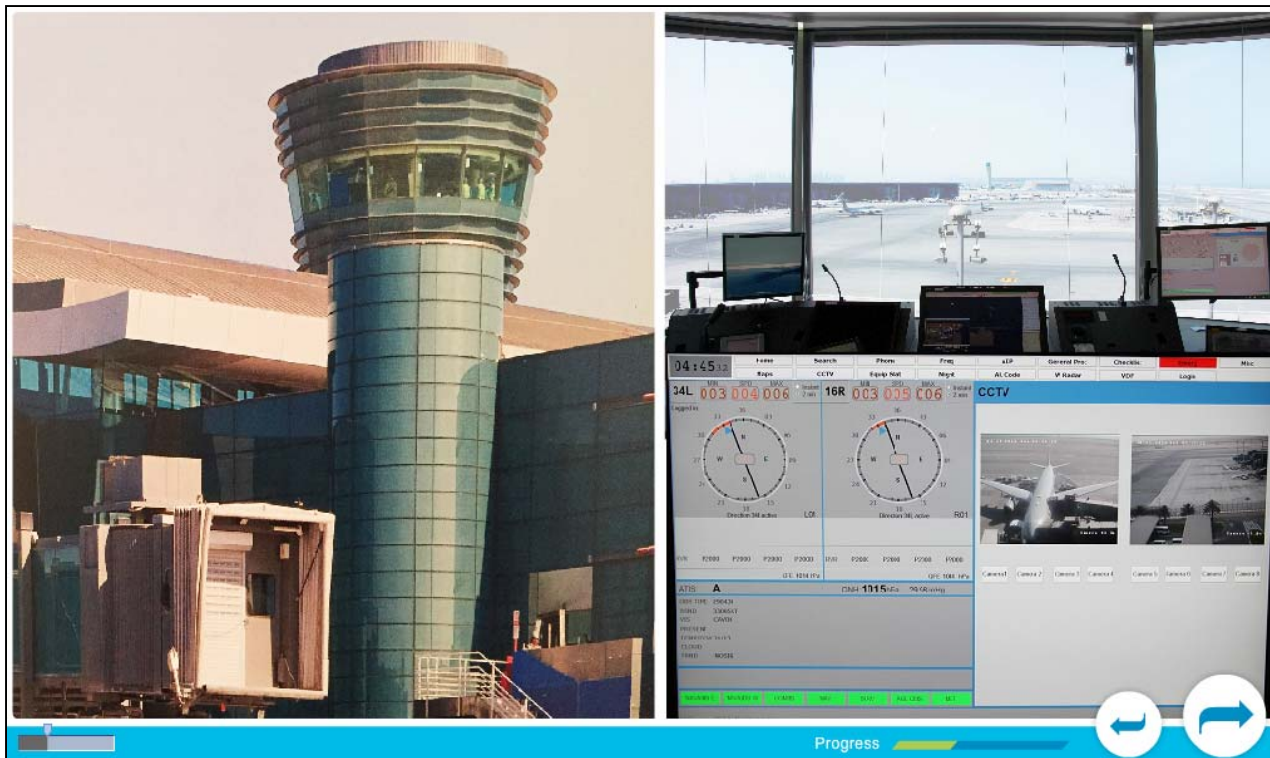


Performance Improvement Area 1:

Airport Operations

- (B0-ACDM) Improved airport operations through airport-CDM

Aerodrome Location Indicator /Name	Apron Management	ATM-Aerodrome Coordination	Technical & runway capacity declared
OTHH/Hamad Intl. Airport	Partially Implemented	Not Implemented	Not Implemented
OTBD/Doha Intl. Airport	Partially Implemented	Not Implemented	Not Implemented

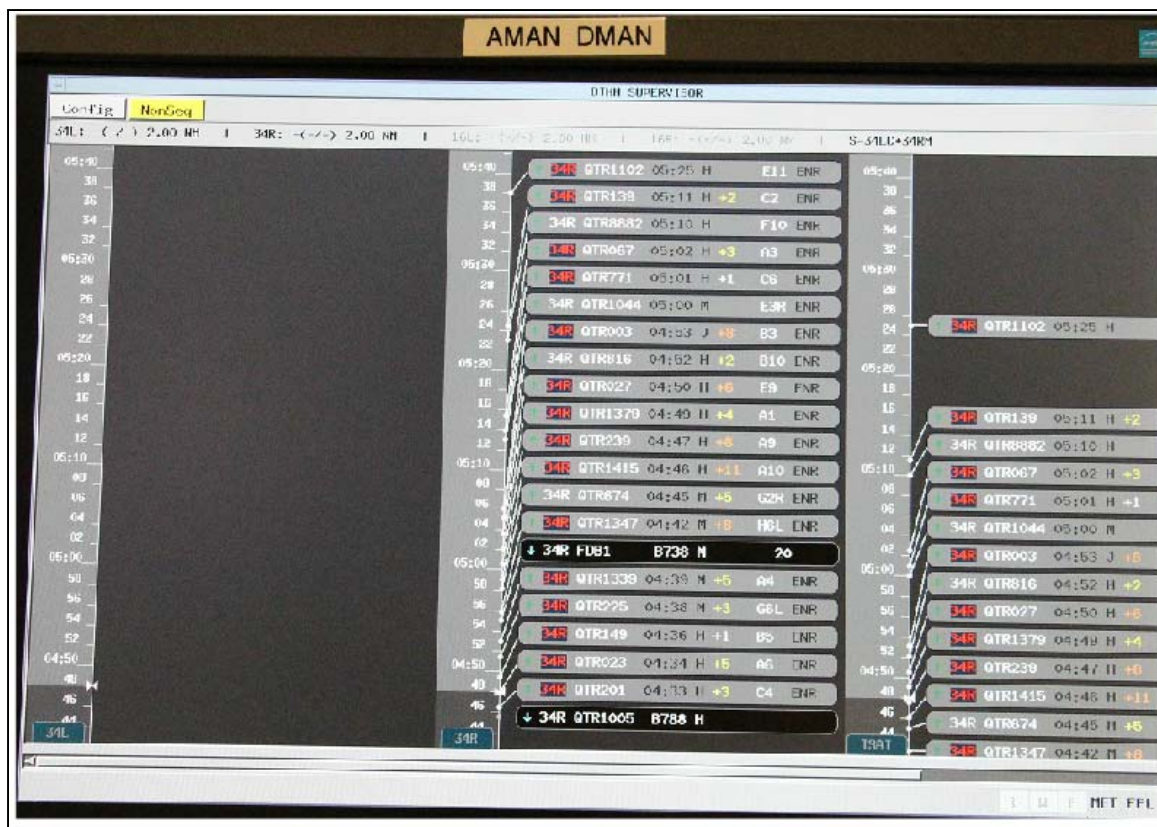


Performance Improvement Area 1:

Airport Operations

- (B0-RSEQ) Improve traffic flow through runway sequencing

Aerodrome Location Indicator /Name	Arrival Manager (AMAN)	Departure Manager (AMAN)
OTHH/Hamad Intl. Airport	Implemented	Implemented
OTBD/Doha Intl. Airport	Implemented	Implemented

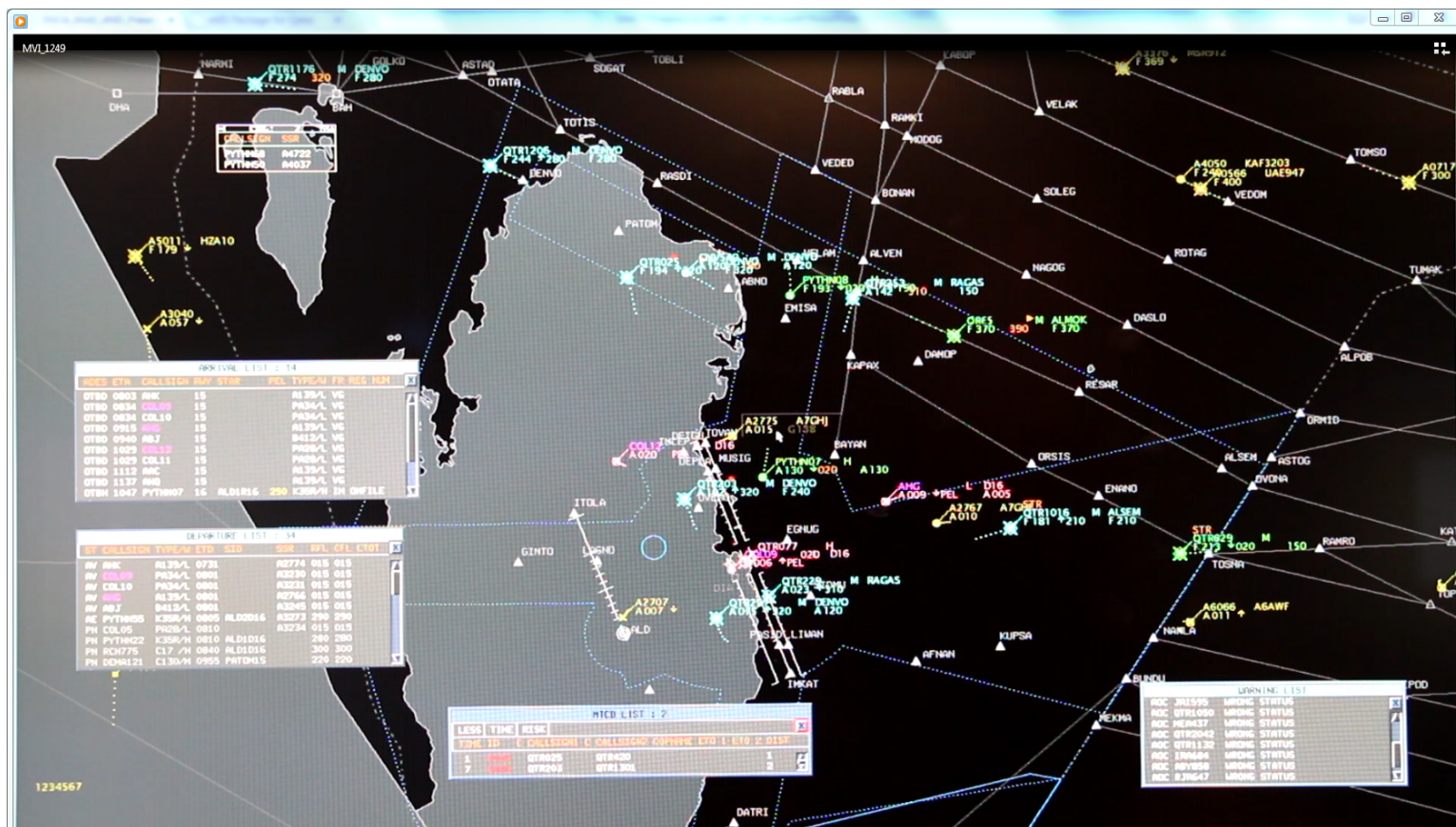


Performance Improvement Area 2:

Globally Interoperable Systems and Data

- (B0-FICE) Increased interoperability, efficiency and capacity

AMHS Capability	AMHS Interconnection	AIDC/OLDI Capability	AIDC/OLDI Implementation
Implemented	Implemented	Implemented	Implemented (local implementation for OLDI)



Performance Improvement Area 2:

Globally Interoperable Systems and Data

- (B0-DATM) Service Improvement through Digital aeronautical information management

B0-DATM-3-1 Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

IAID	AIP	NOTAM	PIB	Charting	Procedure Design	ATS
Partially Implemented	Partially compliant	Fully compliant	Fully compliant	Partially compliant	Partially Implemented	Not Implemented

B0-DATM-3-2 Aeronautical Data Quality

QMS	Establishment of formal agreements	Digital data exchange with originators	Metadata	Data quality monitoring	Data integrity monitoring	AIRAC adherence
Fully compliant	Fully compliant	Partially Implemented	Fully compliant	Fully compliant	Fully compliant	Fully compliant

B0-DATM-3-3 World Geodetic System-1984 (WGS-84)

FIR/ENR	Terminal	AD	GUND
Fully compliant	Fully compliant	Fully compliant	Fully compliant

B0-DATM-3-4-1 Provision of Terrain and Obstacle data sets for Areas 1 and 4

Terrain data sets (Area 1)	Terrain data sets (Area 4)	Obstacle data sets (Area 1)	Obstacle data sets (Area 4)
Fully compliant	Fully compliant	Fully compliant	Fully compliant

B0-DATM-3-4-2 Provision of Terrain and Obstacle data sets for Areas 2

Terrain data sets				Obstacle data sets			
(Area 2a)	(Area 2b)	(Area 2c)	(Area 2d)	(Area 2a)	(Area 2b)	(Area 2c)	(Area 2d)
Fully compliant	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Fully compliant

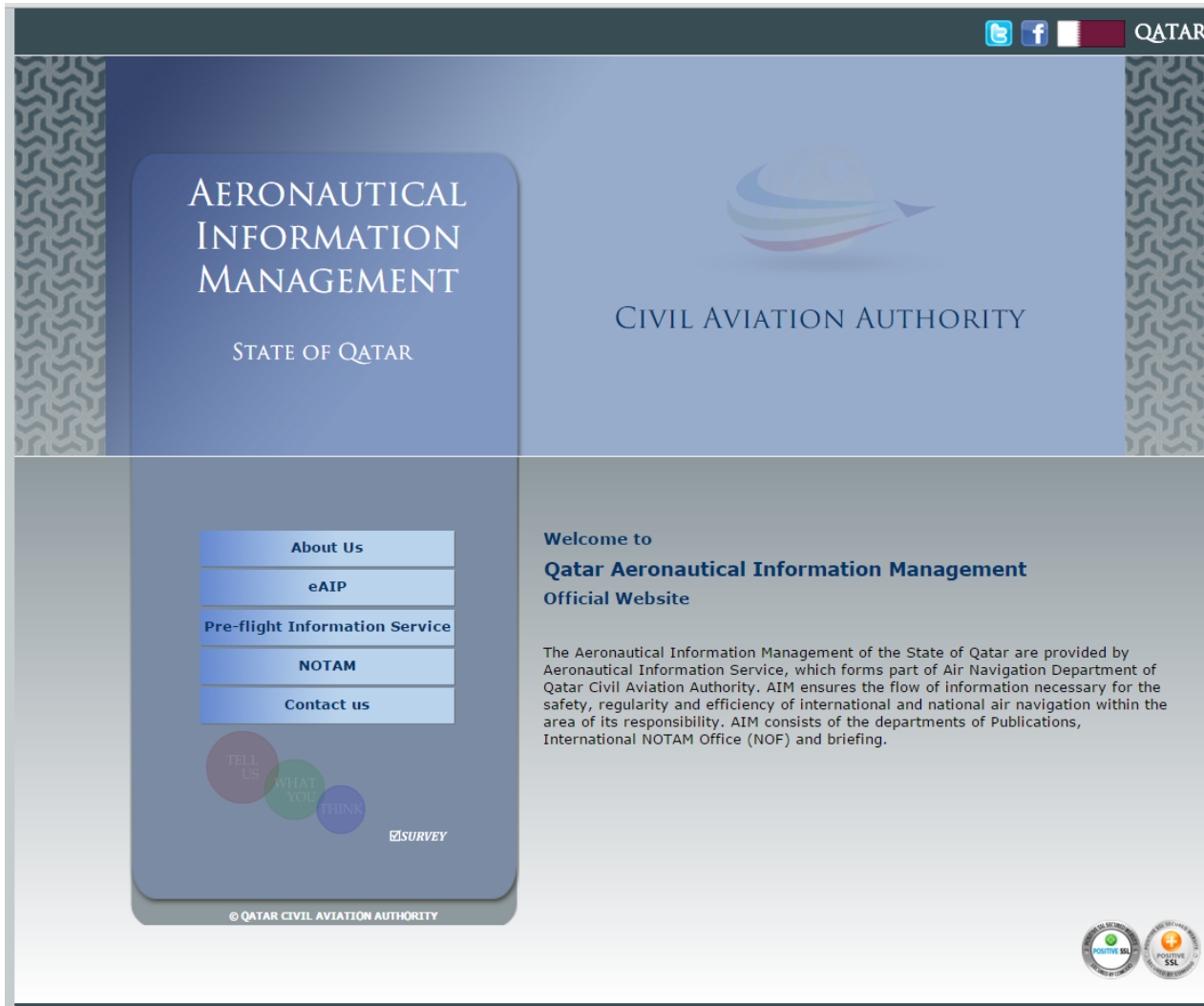
B0-DATM-3-4-3 Provision of Terrain and Obstacle data sets for Areas 3

Terrain data sets (Area 3)	Obstacle data sets (Area 3)	AMDB
Not implemented	Fully implemented	Partially implemented

Performance Improvement Area 2:

Globally Interoperable Systems and Data

- (B0-DATM) Service Improvement through Digital aeronautical information management

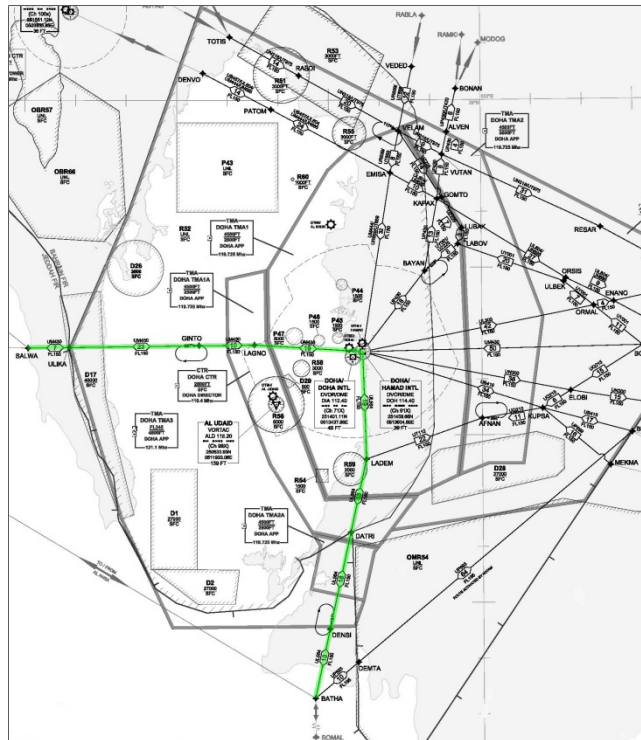


Performance Improvement Area 3:

Optimum Capacity and Flexible Flights

- (B0-FRTO) Improved operations through enhanced en-route trajectories

FUA Implemented	Total number of ATS Routes	Total number of required routes to be implemented through segregated Areas	Number of routes that are NOT implemented due military restrictions (segregated areas)
Partially Implemented	21	2 (M430/L564) – Time route	0



Optimum Capacity and Flexible Flights

- **(B0-SNET) Increased effectiveness of ground based safety nets**

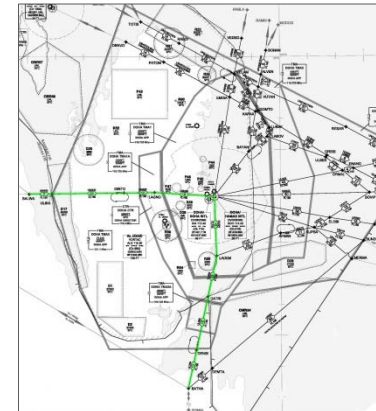


Performance Improvement Area 4:

Efficient Flight Path

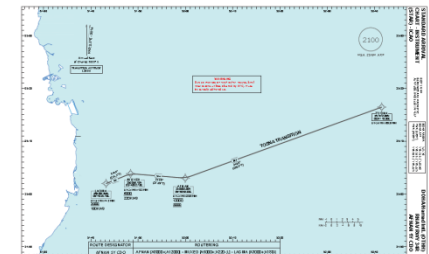
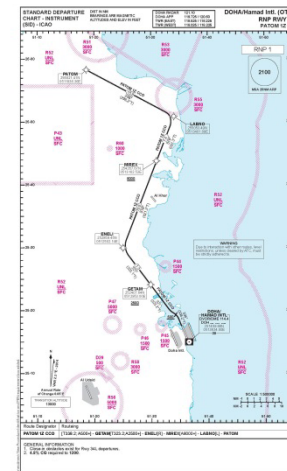
- (B0-CDO) Improved flexibility and efficiency in descent profiles

Aerodrome Location Indicator /Name	RWY	RNAV STAR	CDO
OTHH/Hamad Intl. Airport	16L	Implemented	Tactically achieved
	16R	Implemented	Tactically achieved
	34L	Implemented	Tactically achieved
	34R	Implemented	Tactically achieved
OTBD/Doha Intl. Airport	15	Implemented	Tactically achieved
	33	Implemented	Tactically achieved



- (B0-CCO) Improved flexibility and efficiency in departure profiles

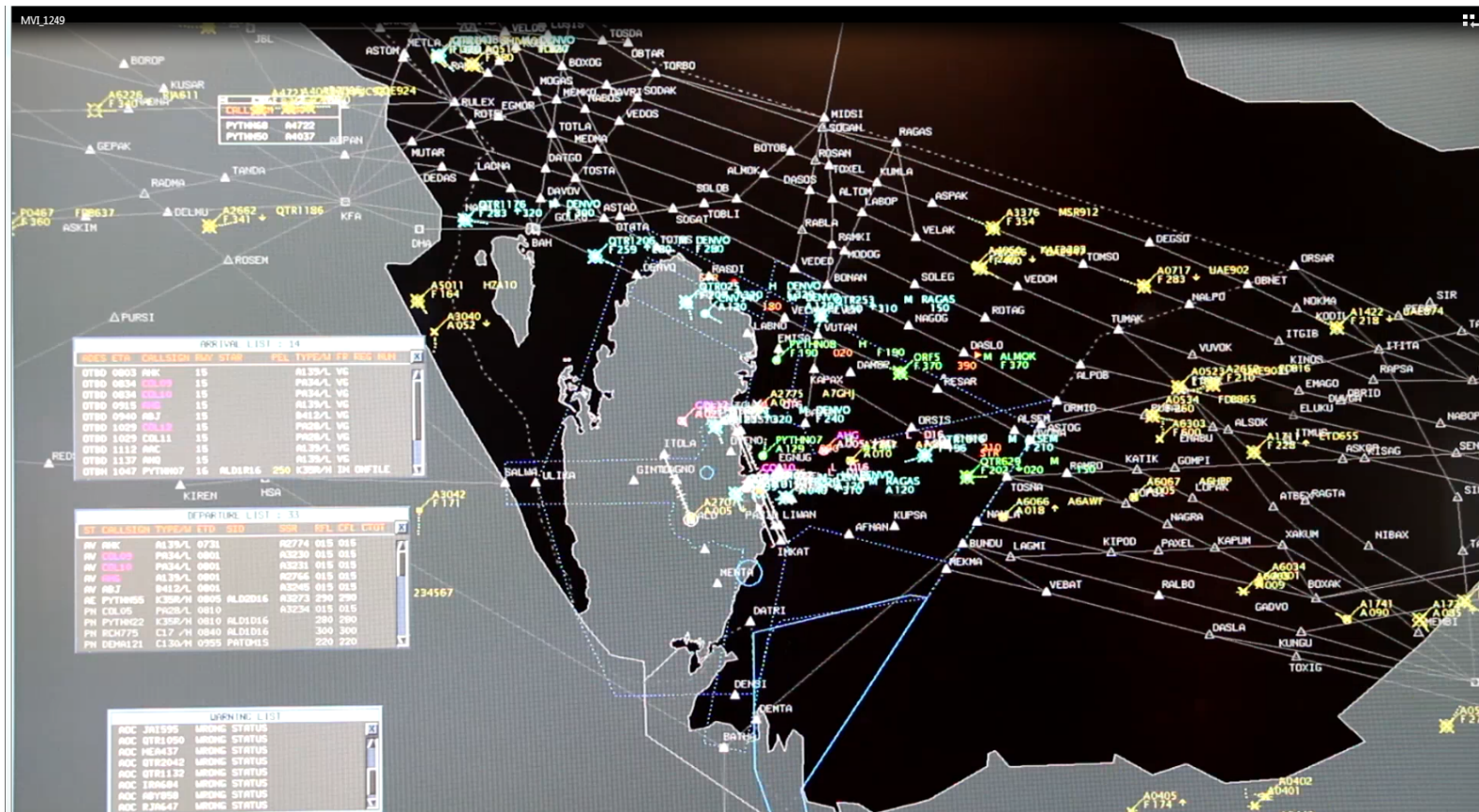
Aerodrome Location Indicator/Name	RWY	RNAV SID	CCO
OTHH/Hamad Intl. Airport	16L	Implemented	Tactically achieved
	16R	Implemented	Tactically achieved
	34L	Implemented	Implemented
	34R	Implemented	Tactically achieved
OTBD/Doha Intl. Airport	15	Implemented	Tactically achieved
	33	Implemented	Tactically achieved



Performance Improvement Area 4:

Efficient Flight Path

- (B0-TBO) Initial application of data link en-route



THANK YOU